UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,032	08/09/2005	Fatiha Anouar	08774-269US1/MEG0880	6956

26211 7590 09/04/2008
FISH & RICHARDSON P.C.
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
THOMAS, MIA M	

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
09/04/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/519,032	ANOUAR ET AL.	
	Examiner	Art Unit	
	Mia M. Thomas	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 May 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/17/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is responsive to applicant's remarks received on 27 May 2008. Claims 2-33 are pending for further examination. See the Examiner's full and detailed response below.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections - 37 CFR 1.75(a)

3. The following is a quotation of 37 CFR 1.75(a):

> The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

4. Claim 2 is objected to under 37 CFR 1.75(a) as failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention or discovery.

Regarding claim 2, the term "the spectral domain" at line 4 of claim 2 lacks an antecedent basis. However, it appears from the context of the claim when read in light of the specification that "the spectral domain" is in fact referring to the "a spectral domain" first introduced; and this will be assumed for examination purposes.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2, 4, 13, 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735) utilizing US (6,891,180 B2, as an English translation).

Regarding Claim 1: (Canceled)

Regarding Claim 2: (Currently amended) Ross teaches ~~A method as claimed in claim 1~~ A method of testing a currency item("The present invention relates to an apparatus and method for acquiring and processing images, particularly of moving media, and for the validation of such media. The invention has particular application in the field of self-service terminals (SST) and in detection of forged banknotes and similar media. In its broader aspects the invention has application in verifying or confirming the source or validity of other items or products." at column 1, line 5)

the resolution is reduced in the spectral domain ("Conveniently, a number of features of the method may be varied. The rate of acquisition of images and the speed of movement of the media relative to the filter or imaging means may both be varied independently to alter the spatial and spectral resolution of the acquired images, depending on the desired purpose of the imaging." at column 3, line 13-20), the method comprising filtering a signal of the measured values in the spectral domain to reduce the resolution in the spectral domain by taking a subset of the set of spectral components (Refer to column 3, lines 53-58; for example, refer to column 5, lines 55-64).

Holl teaches deriving a plurality of measurements of the currency item at a resolution (R) (Refer to column 2, lines 11-31)
and processing the measurements to derive values at a different resolution, ("Depending on the desired resolution, such CMOS photodetector chips can be disposed in a larger or smaller number on a given surface area." at column 2, line 14)

Ross and Holl are combinable because they are in the same field of imaging applications, specifically with respect to reading bank checks. (See title, abstract and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to derive a plurality of measurements of the currency item at a resolution (R) and process the measurements to derive values at a different resolution.

The suggestion/motivation for doing so would have been "to create a compact structure for an imaging system, whereby the light source formed as an LED array guarantees a long life of the illumination device as well as sufficient luminosity of a suitable wavelength" (at column 1, line 45, Holl).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ross and Holl to obtain the specified claimed elements of Claim 2.

Regarding Claim 4: (Previously Presented) Ross teaches the spectral domain is the frequency spectrum ("Preferably, the VIF is a linear VIF. A linear VIF is a narrow bandpass filter

which passes light according to a wavelength that varies linearly along the length of the filter but is constant across its width. A typical linear VIF may pass light which varies from 400 nm to 700 nm along the length of the filter to cover the visible spectrum; or from 400 nm to 1000 nm to include infra-red. Of course, any desired range of wavelengths may be utilized." at column 2, line 37).

Regarding Claim 13: (Currently amended) Holl teaches involving a method of reconstituting a sampled signal (Refer to column 5, line 60-column 6, line 5).

Regarding Claim 20: (Currently amended) Ross teaches validating a currency item ("This enables an identification of the banknotes to be carried out, and if the note is not recognized, to be rejected." at column 3, line 5).

Regarding Claim 21: (Currently amended) Ross teaches denominating a currency item ("Alternatively, or in addition, the full spectrum information of a note over a selected area of the note, such as the name of the issuing bank, or the denomination of the note, may be compared against a reference portion of a genuine note." at column 3, line 8).

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735) utilizing US (6,891,180 B2, as an English translation) and further in view of Gardner (US 6,483,576 B1).

Regarding Claim 3: (Original) Ross in combination with Holl teaches/discloses all the claimed

elements as rejected above. Ross in combination with Holl does not expressly describe a subset.

However, Gardner expressly teaches the subset is of a predetermined size (Refer to column 5, line 14-24, by way of example.).

Ross, Holl and Gardner are combinable because they are in the same field of image processing applications with specific interest in reading bank checks. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to utilize a subset of variables of a predetermined size.

The suggestion/motivation for doing so would have been "to prevent counterfeiters from figuring out how to duplicate an authentication certificate." (further see column 5, line 35-53, Gardner)

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ross and Holl with Gardner to obtain the specified claimed elements of Claim 3.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735) utilizing US (6,891,180 B2, as an English translation) and further in view of Rhoads (US 6,343,138 B1).

Regarding Claim 5: (Original) Ross in combination with Holl teaches/discloses all the claimed

elements as rejected above. Ross in combination with Holl does not expressly teach filtering excludes high frequency components.

However, Rhoads teaches the filtering excludes high frequency components ("The new image is applied to the fast fourier transform routine and a scale factor is eventually found which minimizes the integrated high frequency content of the new image." at column 13, line 42).

Ross, Holl and Rhoads are combinable because they are in the same field of image processing applications with specific interest in reading bank checks. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to utilize a filter method to exclude high frequency components.

The suggestion/motivation for doing so would have been for "estimating and removing embedded codes from the calculated scale factor." (see column 13, line 42-55, Rhoads).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Rhoads with the combination of Ross and Holl to obtain the specified claimed elements of Claim 5.

9. Claims 6, 19, 22, 24, 25, 26, 27, 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735)

utilizing US (6,891,180 B2, as an English translation) and further in view of Raterman et al. (US 6459806 B1).

Regarding Claim 6: (Previously Presented) Ross in combination with Holl teaches/discloses all the claimed elements as rejected above. Ross in combination with Holl does not expressly teach the signal of the measured values is normalized, preferably by a mean value, before filtering.

Raterman teaches the signal of the measured values is normalized, preferably by a mean value, before filtering ("The sample data is subjected to digital processing, including a normalizing process, whereby the reflectance data represents a characteristic pattern that is unique for a given bill denomination and incorporates sufficient distinguishing features between characteristic patterns for discriminating between different currency denominations." at abstract).

Ross, Holl and Raterman are combinable because they are in the same field of image processing applications with specific interest in reading bank checks. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to perform a method so that the signal of the measured values is normalized, preferably by a mean value, before filtering.

The suggestion/motivation for doing so would have been for " The normalized reflectance data represent a characteristic pattern that is fairly unique for a given bill denomination and incorporates sufficient distinguishing features between characteristic patterns for different currency denominations so as to accurately differentiate therebetween." (at column 6,line 35, Raterman)

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Raterman with the combination of Ross and Holl to obtain the specified claimed elements of Claim 6.

Regarding Claim 19: (Currently amended) Raterman teaches the measured values are derived along a line substantially parallel to one edge of the document ("A series of such detected reflectance signals are obtained by sampling and digitally processing, under microprocessor control, the reflected light at a plurality of predefined sample points as the bill is moved across the illuminated strip with its narrow dimension parallel to the direction of transport of the bill." at column 2, line 62).

Regarding Claim 22: (Currently amended) Raterman teaches testing a document, banknote or other value sheet ("The pattern generated by scanning a bill under test and processing the data samples is compared with each of the prestored master patterns to generate, for each comparison, a correlation number representing the extent of similarity between corresponding ones of the plurality of data samples for the compared patterns." at abstract; refer to column 3, line 37).

Regarding Claim 24 (Currently amended): Raterman teaches a currency tester adapted to perform a method as claimed in claim 2 (Refer to Figure 11; "FIG. 11 is a perspective view showing currency discrimination and counting apparatus particularly adapted to and embodying the optical sensing and correlation technique of this invention." at column 5,line 1).

Regarding Claim 25 (Original): Raterman teaches means for sensing a currency item at resolution R ("FIG. 16 is an exploded top perspective view of the optical scan-head used in the system of FIGS. 1-15." at column 5, line 16).

Regarding Claims 26 and 27 (Original): Raterman discloses means for sensing a currency item at resolution R1 extending in a first direction and means for sensing a currency item at a resolution R2 in a second direction (Specifically Refer to Figure 20; "As best illustrated in FIG. 20, the pair of optical sensors S1 and S2 (having corresponding light sources and photo detectors which are not shown here) are co-linearly disposed within the scan head area in close parallelism with the wide dimension edges of incoming test bills." at column 27, line 55).

Regarding Claim 30: (Previously Presented) Raterman teaches a currency tester as claimed in claim 24 for testing a document, banknote or other value sheet ("An improved method and apparatus for discriminating between currency bills of different denominations uses an optical sensing and correlation technique based on the sensing of bill reflectance characteristics obtained by illuminating and scanning a bill along its narrow dimension." at abstract; "The present invention relates, in general, to currency identification. The invention relates more particularly to a method and apparatus for automatic discrimination and counting of currency

bills of different denominations using light reflectivity characteristics of indices printed upon the currency bills." at column 1, line 24).

Regarding Claim 31: (Original) Raterman teaches a document can be fed in the transport path with skew and offset with respect to the edge of the transport path ("Accordingly, currency bills are firmly gripped under uniform pressure between the two sets of active and passive rollers within the scanhead area, thereby minimizing the possibility of bill skew and enhancing the reliability of the overall scanning and recognition process." at column 23, line 39).

Regarding Claim 32 (Previously Presented)**:** Raterman teaches a currency tester as claimed in claim 24 which can process a plurality of currency items of different sizes ("Preferably, the currency discrimination and counting method and apparatus of this invention is adapted to identify seven (7) different denominations of U.S. currency, i.e., $1, $2, $5, $10, $20, $50 and $100. Accordingly, a master set of 16 different characteristic patterns is stored within the system memory for subsequent correlation purposes (four patterns for the $10 bill and two patterns for each of the other denominations." at column 3, line 29).

Regarding Claim 33: (New) Raterman teaches a currency tester adapted to perform a method as claimed in any one of claims 3 through 8 ("The memory unit 38 has stored within it the correlation program on the basis of which patterns are generated and test patterns compared with stored master programs in order to identify the denomination of test currency." at column 8, lines 45-60).

10. Claims 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735) utilizing US (6,891,180 B2, as an English translation) and further in view of Imagawa et al. (US 5,479,570).

Regarding Claim 7: (Previously Presented) Ross in combination with Holl teaches/discloses all the claimed elements as rejected above. Ross in combination with Holl does not expressly teach deriving a feature vector using the subset of spectral components.

Imagawa teaches deriving a feature vector using the subset of spectral components ("The output of each divider 37 is output finally from the fine classification section 1 as an in-group similarity vector of each category to the input pattern signal X (upsilon1, upsilon2, . . . upsilonc) to the discrimination signal loading section 7." at column 9, line 28).

Ross, Holl and Imagawa are combinable because they are in the same field of image processing applications with specific interest in reading bank checks and pattern recognizers (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to deriving a feature vector using the subset of spectral components.

The suggestion/motivation for doing so would have been for " This learning and recognition machine can recognize the input pattern by repeating the aforementioned learning operations until all the discrimination results to the input pattern signal X agree to its category. As described above, according to the present embodiment, the weight of each fine classification section is

modified based on the learning control signal weighted by the group belongingness output by the major classification section, so that the fine classification sections in which the category to which the input pattern signal belongs learn in a coordinated manner and it is possible to improve a recognition rate of a pattern situated at the boundary of the category groups." (at column 10,line 58, Imagawa)

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Imagawa with the combination of Ross and Holl to obtain the specified claimed elements of Claim 7.

Regarding Claim 8: (Original) Imagawa teaches processing the feature vector using a neural network, including a back propagation network or an LVQ network (Refer to Figure 6; "The weight factor updating section 1b updates the category reference pattern signal (weight factor) of the in-group similarity calculating section 1a from the output of the in-group similarity calculating section 1a and that of the learning control signal loading section 6 by using a method for example similar to a learning algorithm called Learning Vector Quantization (LVQ)." at column 10, line 17).

11. Claims 9, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735) utilizing US (6,891,180 B2, as an English translation) and further in view of Rhoads (US 2003/0035565 A1).

Regarding Claim 9: (Currently Amended) Ross in combination with Holl teaches/discloses all

the claimed elements as rejected above. Ross in combination with Holl does not expressly teach interpolation to increase the resolution in the spatial domain.

Rhoads teaches interpolation to increase the resolution in the spatial domain (Refer to paragraph [0040], [0127], [0128]).

Ross, Holl and Rhoads are combinable because they are in the same field of image processing applications with specific interest in reading bank checks. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to interpolate to increase the resolution in the spatial domain.

The suggestion/motivation for doing so would have been "to determine the weight to be given the tweak from each region in determining what change is to be made to the line width in any given region." (at paragraph [0040], Rhoads).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Rhoads with the combination of Ross and Holl to obtain the specified claimed elements of Claim 9.

Regarding Claim 18. (Previously Presented) Rhoads teaches removing the mean of the measured values before interpolation and reinstating it after interpolation (Refer to paragraph [0037]).

12. Claims 10 -12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735) utilizing US (6,891,180 B2, as an English translation) and further in view of Rhoads (US 2003/0035565 A1) and Raterman et al. (US 6459806 B1).

Regarding Claim 10: (Original) Ross in combination with Holl and Rhoades teaches/discloses all the claimed elements as rejected above. Ross in combination with Holl and Rhoads does not expressly teach that measurements are derived at a first resolution R1 in a first spatial direction and at a second resolution R2 in a second spatial direction.

Raterman teaches measurements are derived at a first resolution R1 in a first spatial direction and at a second resolution R2 in a second spatial direction ("The stored patterns correspond, respectively, to optical scans performed on the green surface of a bill along "forward" and "reverse" directions relative to the pattern printed on the bill. For bills which produce significant pattern changes when shifted slightly to the left or right such as the $." at 3, line 19).

Ross, Holl, Rhoads and Raterman are combinable because they are in the same field of image processing applications with specific interest in reading bank checks. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to take measurements that are derived at a first resolution R1 in a first spatial direction and at a second resolution R2 in a second spatial direction.

The suggestion/motivation for doing so would have been to determine "...a master set of 16 different characteristic patterns is stored within the system memory for subsequent correlation purposes (four patterns for the $10 bill and two patterns for each of the other denominations)." at column 3, line 33, Raterman

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Raterman with the combination of Ross, Holl and Rhoads to obtain the specified claimed elements of Claim 10.

Regarding Claim 11: (Original) Raterman teaches the first and second directions are substantially perpendicular ("According to another feature of the present invention, the undesired doubling or overlapping of bills in the transport system is detected by the provision of a pair of optical sensors which are co-linearly disposed opposite to each other within the scan head area along a line that is perpendicular to the direction of bill flow, i.e., parallel to the edge of test bills along their wide dimensions as the bills are transported across the optical scan head." at column 27, line 47+; "In effect, the optical sensors S1 and S2 are disposed opposite each other along a line within the scan head area which is perpendicular to the direction of bill flow." at column 27, line 60).

Regarding Claim 12: (Previously Presented) Rhoads teaches R1<R2 and wherein the processing increases the resolution in the first direction to approximately R2 (Refer to paragraph [0037]).

13. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735) utilizing US (6,891,180 B2, as an English translation) and further in view of Wolberg---"Image Resampling"-IEEE Computer Society Press, pages 117-149.

Regarding Claim 14: (Currently amended) Ross in combination with Holl teaches/discloses all the claimed elements as rejected above. Ross in combination with Holl does not expressly teach summing measured values weighted by a weighting function.

Wolberg teaches summing measured values weighted by a weighting function ("The spectra for the Hann and Hamming windows can be shown to be the sum of a sinc, the spectrum of Rect(x), with two shifted counterparts: a sinc shifted to the right by 2pi/ (n-1), as well as one shifted to the left by the same amount." at page 139, Section 5.4.6.1, paragraph 2).

Ross, Holl and Wolberg are combinable because they are in the same field of image processing applications with specific interest in reading bank checks. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to sum measured values weighted by a weighting function.

The suggestion/motivation for doing so would have been to "Recall that an ideal reconstruction filter will have unity gain in the pass band and zero gain in the stop band in order to transmit and

suppress the signal's spectrum in these respective frequency ranges." (Wolberg-at page 125, paragraph 3).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Wolberg with the combination of Ross and Holl to obtain the specified claimed elements of Claim 14.

Regarding Claim 15: (Original) Wolberg teaches the weighting function is of the form sin(x)/x (Refer to Equation 5.4.25, at page 139).

Regarding Claim 16: (Currently amended) Wolberg teaches using a weighting window to compensate for edge effects ("The Hann and Hamming windows are defined as (Refer to Equation 5.4.25)." at page 139).

Regarding Claim 17: (Original) Wolberg teaches the weighting window is a raised cosine window such as a Hamming or Hanning or Kaiser-Bessel window ("Since they both amount to a scaled and shifted cosine function, they are also known as the raised cosine window." at page 139, subsection 5.4.6.1-Hann and Hamming Windows, paragraph 1).

14. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735) utilizing US (6,891,180 B2, as an English translation) and further in view of Adameck et al (US 6,819,410 B2)

Regarding Claim 23: (Currently amended) Ross in combination with Holl teaches/discloses all the claimed elements as rejected above. Ross in combination with Holl does not expressly teach testing a coin.

Adameck teaches testing a coin ("It is object of the invention to provide a process for identifying an embossed image of a coin in an automatic coin tester which permits to identify the coin by simple means in a reliable manner." at column 1, line 38).

Ross, Holl and Adameck are combinable because they are in the same field of image processing applications with specific interest in reading bank checks and banking documents. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to test a coin.

The suggestion/motivation for doing so would have been to determine if "the validation device produces a genuine coin or counterfeit coin signal for the coin depending on the coincidence of the image with the reference patterns." at abstract, Adameck.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings Ross, Holl and Adameck to obtain the specified claimed elements of Claim 23.

15. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 6,757,419 B1) in combination Holl et al. (WIPO 01/50735) utilizing US (6,891,180 B2, as an English translation) and further in view of Raterman et al. (US 6459806 B1) and Adameck et al (US 6,819,410 B2)

Regarding Claim 28: (Previously Presented) Ross in combination with Holl and Raterman teaches/discloses all the claimed elements as rejected above. Ross in combination with Holl and Raterman does not expressly teach a currency tester for denominating and/or validating currency items.

Adameck teaches a currency tester for denominating and/or validating currency items ("A process for identifying an embossed image of a coin in an automatic coin tester, in which a coin is moved to an image receiver and a light source, the image receiver picks up at least one image of the embossed image of the coin, and a validation device compares the image to a first reference pattern to find out whether the first reference pattern is contained in the image which was picked-up." at abstract).

Ross, Holl, Raterman and Adameck are combinable because they are in the same field of image processing applications with specific interest in reading bank checks and other banking documents, specifically coins. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to utilize a currency tester for denominating and/or validating currency items.

The suggestion/motivation for doing so would have been to provide a "process for identifying an embossed image of a coin in an automatic coin tester which permits to identify the coin by simple means in a reliable manner." at column 1, line 38, Adameck.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Adameck with the combination of Ross, Holl and Raterman to obtain the specified claimed elements of Claim 28.

Regarding Claim 29: (Previously Presented) Adameck teaches a currency tester for testing a coin ("The invention relates to a process for identifying an embossed image of a coin in an automatic coin tester." at column 1, line 8).

Response to Arguments

16. Applicant's arguments with respect to claims 2-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mia M. Thomas whose telephone number is (571)270-1583. The examiner can normally be reached on Monday-Thursday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on 571-272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mia M Thomas/
Examiner, Art Unit 2624

/Vikkram Bali/

Supervisory Patent Examiner, Art Unit 2624